NEW FOOD PLANTS FOR *JALMENUS EVAGORAS EVAGORAS* (DONOVAN) (LEPIDOPTERA: LYCAENIDAE)

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Abstract

Two additional larval food plants, golden wattle *Acacia pycnantha* Benth. and lightwood *A. implexa* Benth., are recorded for the common imperial blue butterfly *Jalmenus evagoras evagoras* (Donovan) from the Macleod-Bundoora area near Melbourne, Victoria.

Introduction

Hawkeswood (1981) listed thirteen species of *Acacia* (Mimosaceae), including one unrecorded species, on which *Jalmenus evagoras evagoras* (Donovan) breed. Common and Waterhouse (1981) and Dunn (1984) added two further species of *Acacia*, bringing the total number of known larval food plants to fifteen. Larvae are known to feed gregariously during the day, usually on plants of 1-2 m high, pupating in groups on communal webs on foliage or twigs of the host-plant (McCubbin 1971, Common and Waterhouse 1981, Hutchinson 1972). Larvae prefer bipinnate acacia (Kitching and Taylor 1981), although they are by no means restricted to them. Two previously unrecorded *Acacia* spp. utilised by this butterfly near Melbourne, Victoria are recorded.

Food Plants

The author, accompanied by Mr G.P. Closs, discovered colonies of *J. e. evagoras* breeding on *Acacia pycnantha* Benth. and *Acacia implexa* Benth. in open woodland at the Mont Park Psychiatric Hospital, Macleod, approximately 14 km NE of Melbourne, Victoria (145° 03'E, 37° 44'S) on 17th January 1987. Two plants of *A. pycnantha* about 1 m high, supported eggs, thirty-six late instar larvae, nine pupae and numerous uncounted first instar larvae (presumably of second generation). A third plant of *A. pycnantha* (*ca* 6-7 m high), contained several hundred pupae, exuviae and some final instar larvae. Larvae and pupae occurred on the trunk within 1 m of the ground. Most pupae were well concealed, situated beneath loose bark or in cracks in the trunk.

The single plant of *A. implexa* (*ca* 0.5 m) largely comprised juvenile bipinnate foliage, although some phyllodes were present at the base of the plant. Nine late-instar larvae, three pupae and a number of eggs were present. Larvae were observed feeding only on the bipinnate leaves.

Adults were abundant on all plants of both species, settling on the foliage and base and the trunk of the large *A. pycnantha* where some were observed mating. All plants were relatively close together with the two small plants

of *A. pycnantha* situated 1 m from *A. implexa*, approximately 10 m from the large *A. pycnantha*.

In the same area *J. e. evagoras* was observed breeding on many small plants (<2 m high) of *A. mearnsii* De Wild. and on some *A. melanoxylon* R. Br. At La Trobe University, Bundoora, *J. e. evagoras* commonly breeds on small plants of *A. melanoxylon* and *A. mearnsii* and less often on *A. dealbata* Link and *A. pycnantha* (T.R. New pers. comm.).

Discussion

The occurrence of *J. e. evagoras* breeding on *A. pycnantha* and *A. implexa* is unusual in several respects. Despite the abundance of these *Acacia* spp., neither have previously been documented as natural food plants. Also, the size of the large *A. pycnantha* and the location of pupae on this plant are most uncharacteristic for this butterfly, at least in Victoria (D.F. Crosby pers. comm.), and somewhat resemble the habits of the closely-related *J. ictinus* Hewitson (McCubbin 1971, Common and Waterhouse 1981). Both *A. pycnantha* and *A. implexa* are usually small trees, the latter species somewhat similar to *A. melanoxylon*. (Simmons 1981, Costermans 1983). *A. pycnantha* is also host plant for the *J. icilius* Hewitson and *J. lithochroa* Waterhouse (Common and Waterhouse 1981), whereas *A. implexa* has not been recorded for any other species of *Jalmenus*. The extent to which *J. e. evagoras* utilises both *A. pycnantha* and *A. implexa* is not clear. Both *Acacia* spp. are common and widespread in open-forests of Victoria (Simmons 1981, Costermans 1983) where *J. e. evagoras* occurs.

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